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West, Janice; Johnston, Aidan

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Technical and academic partnership: building audio and video into a virtual learning resource.

JANICE WEST Glasgow Caledonian University

AIDAN JOHNSTON Glasgow Caledonian University

Abstract Increasingly available in digital formats, the recorded spoken words from the last 80 years reflect a wide range of cultural phenomena. Every day this rich source of voice material is added to by the archiving of “born digital” recordings of contemporary radio. Digital voice can be heard through the internet but is it of use in teaching?

Spoken Word Services has been developing various techniques to make audio available to teachers, students and other scholars. As the result of a licensing agreement between Glasgow Caledonian University and the BBC, a wide variety of materials from the BBC Sound Archives has greatly enhanced the ‘usability’ of recorded spoken word in support of classroom related activities for students in a diverse range of disciplines.

Clydetown is a fictitious town that is populated by a number of virtual families, each with their own social and health issues that bring them into contact with a range of services and service providers. Students utilise these materials to construct their own understandings of the issues and to discuss and debate with others. They are encouraged to test the theories and understandings taught in more traditional forms (lectures, journals, etc.) against the authentic lived experiences of those who are directly involved. The media used combines original testimony and that provided by actors, both offering the students the opportunity to engage at different levels with this complex content.

Introduction

This article examines some of the issues surrounding the integration of technology enhanced learning into the curriculum for students studying social work and a range of health related disciplines. The focus here is on the collaborative process that has been established between academic and support staff to develop and sustain the technological response to student learning. While the pedagogical influences which are essentially constructivist in orientation (Dalgarno, 1996) will be explored, it is intended as a facilitative illustration of what can be done, even with very limited technical knowledge, as the core of the learning process remains the teacher’s grasp of the pedagogy that underpins the learning process. This is key to effective learning whether traditional or technology enhanced. This is then further enhanced by the ongoing support of the Learning Technologist who has advised on what is achievable. It is this bringing together of two different skills sets that is the core of this project.

Background

Eight years ago, the ‘Clydetown’ virtual community was developed as a means of contextualising student learning around a number of complex concepts within the social and psychological processes of lifespan development¹. Within a fictitious town, with many of the hallmarks of urban poverty, social stratification and inequalities that can be found in many towns and cities, students were encouraged to engage with a range of online media. Case studies were developed by teachers to simulate the kinds of life events and issues likely to be encountered within social work practice. While case studies had been extensively utilised within previous classroom teaching, teachers were keen to explore what the added value of a technological approach might be. What was it about a web-based virtual community that was likely to enhance student learning within this aspect of the curriculum? Why not use paper based methods?

The view taken by the teachers involved at that early stage of development was that the creation of a community, within which the ‘families’ in the case studies lived, offered a richness to the overall content. It would assist students to see more clearly the ‘person in situation’ (Hollis, 1972) rather than objectifying them as being solely of academic concern.

As the project developed, the process of technological change opened up further possibilities in terms of the potential learning experiences available to students. While academic staff had ideas about what they wished students to learn and some thoughts about how technology might be able to enhance the experience; the process by which this could be achieved was less clear. The original project site had been developed by a group of IT specialists in response to their perception of what academic staff wanted. Unfortunately, this version of the site was created using a programming process that did not allow for any changes to be made without a considerable level of technical knowledge and skills. Even the smallest change to content had to be dealt with by the original programme developers which did not make its use particularly reflexive or flexible. There was also the difficulty that academic staff could feel quite intimidated by their lack of skill and tended not to be proactive in terms of changes to the materials. The site was, therefore, in danger of becoming out of date and therefore less well integrated into the learning and teaching strategies adopted by staff.

The site was completely rebuilt in a Flash based Content Management System that allowed information to be added or removed by academic staff, even if they had no technical knowledge. The range of content was also increased to take account of the differing practice contexts of students across the school. Digital media content could take the form of text files, audio, video or picture files, all able to be added in the same straightforward manner. The Learning Technologist from Spoken Word Services had already been successfully implementing and embedding such forms of digital media within the University. They adhere to an open standards and open source approach, investigating new and emerging web 2.0 technologies such as blogs, wikis and web front ends powered by a digital repository. This approach has been recognised by Davis and Eales (2007, p.771) as a critical factor for success in the e-learning design process:

“The development and use of open standards and open source software is one of the most critical success factors in transforming e-learning from a ‘cottage industry’ to a sustainable, scalable way of offering learning opportunities that fit the aims and objectives of the 21st Century higher education sector. However, other factors in the design process are also important for embedding. These include understanding disciplinary differences, ensuring that there is a whole curriculum approach and building learning objects with pedagogical pluralism to enable re-use and re-purposing.”

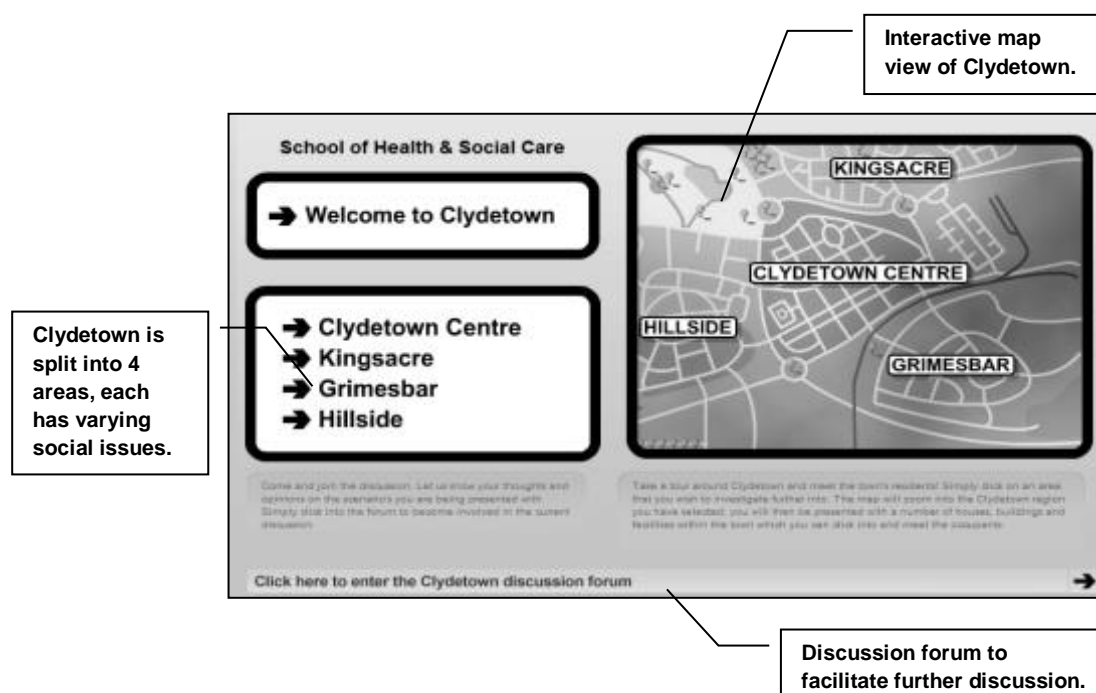


Figure 1 Clydetown start page.

Spoken Word Services are part of a university wide Community of Practice and have been successfully collaborating with a number of academic staff across the University to bring digital audio and video into the curriculum. These relationships were critical in giving the Learning Technologist a greater understanding about the teaching and learning process of the modern learner.

In all stages of the Clydetown re-design process, the three disparate groups i.e. the academics, the Learning Technologist and the external Web Design team were able to synchronise these experiences and recommend successful approaches to the Clydetown rebuild. It was extremely fortuitous that within the university, as part of a 5 year JISC funded 'Digital Libraries in the Classroom' project (DLIC), Spoken Word Services had access to the extensive resources of the BBC audio and video archives. With audio material dating from 1928 to present day, it was apparent that this could potentially offer an interesting additional dimension to the educational experience for students. It was the joined up thinking approach between the academics and the Learning Technologist from Spoken Word Services that helped to make this project a great success. Davis and Eales (2007, p.772) outline such a partnership of academic and IT technical staff as an example of best practice in regards to critical success factors in institutional change when they state that:

"Learning technologists who have a basic understanding of the subject area and of pedagogy; or a member of the team with both a technology and pedagogy background who can 'interpret' between academics and IT specialists are extremely valuable to the experience of e-learning for both the teacher and student."

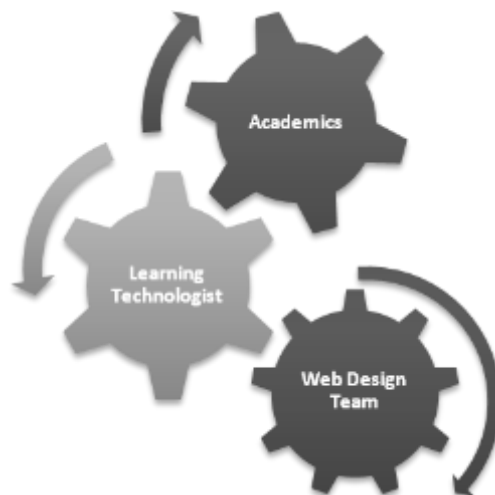


Figure 2 Demonstrates the relationship among the 3 groups.

It was decided to include both audio and video material to support the narrative about each family as a means of improving '...visualisation, recognition and identification by the student' (Shephard, 2003, p. 296). The primary intention was to add depth to the understanding of each virtual individual in terms of his or her story. Short videos had been created for the original project using actors to highlight particular aspects of lifecycle issues. These narratives were created as visual representations to assist learning. What was not expected was the extent to which students viewing this material began to engage with it at an emotional level. They liked or disliked people in the videos; they had strongly held views about what should happen or why things were happening. This degree of emotional engagement was not anticipated at the development stage. It has, however, provided students with an online simulation of the kinds of practice encounters they are likely to face. It is far easier to remain objective about a paper-based vignette that explains someone's predicament than it is when that person is conveying the same information with all the attendant feelings.

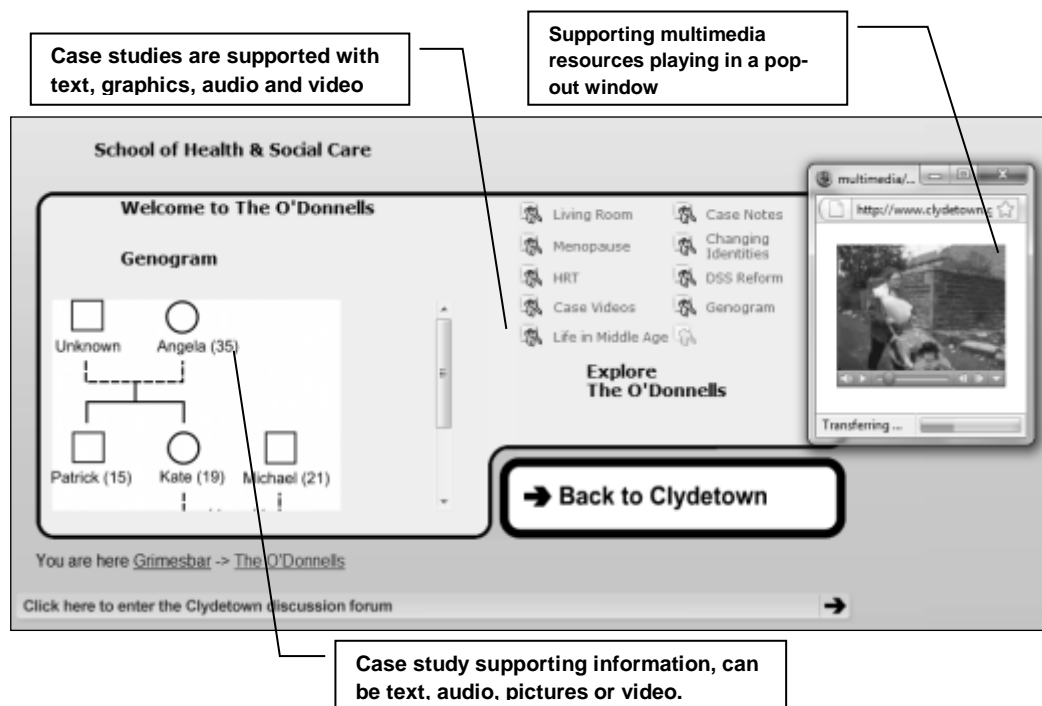


Figure 3 Example of a case study from Clydetown using a variety of multimedia.

By having the facility to search the immense BBC archive catalogue, it has become possible to seek out audio materials from the BBC that relate to the lived experiences of real people to augment the case studies. Predominantly, materials were selected from Radio 4's "You and Yours" broadcasts as they excelled at covering a wide range of social topics that were deemed to be highly relevant to the curriculum. Some examples of BBC audio resources that were collected include homeless people discussing the gritty aspects of living life on the streets, elderly people discussing sex in later life and disabled people discussing their sexuality issues. It also offered students further scaffolding of their learning (Hung et al., 2005) by allowing them to expand their understanding of conceptual information through the lived experiences of others. For example, where they could already read in one of the case studies about a woman in her 50s whose children have left home, and who is entering the next stage in her life cycle, this could now be augmented by voices of real women talking on a BBC programme about their experiences of being menopausal, feeling themselves to be at a crossroads in their lives, and so on.

This opened up a rich stream of additional learning materials to facilitate further the induction of social work students into their professional role. In some cases students might listen to audio not for content, but for style. They would listen to someone to hear how to interview or to practise listening skills. The potential uses of this material seemed clear, the difficulty for the teacher was how best to access and then utilise these resources. As has been noted elsewhere, '...the production of electronic learning resources is especially labour-intensive' (Plewes & Issroff, 2002, p. 11). It may also require a range of skills that go beyond the usual skills set of academic staff. Even in this situation where the learning materials were not being created from scratch there were still heavy resource implications in terms of time and facilities. What made this possible was the coming together of two staff groupings who shared a common understanding of the potential educational gains of the audio materials and who had the necessary desire to cooperate within an equal partnership. By working as a community of practice (Wenger, 1998) it became possible for academic and IT technical staff to achieve outcomes that may not have occurred had they maintained traditional barriers. Academic staff knew what they wished students to learn and how that might be achieved using traditional teaching resources while the IT technical team were able to offer suggestions about how this process could be enhanced through the use of emerging technologies. The combination of the skills of the teacher in identifying the potential educational value of the resources, combined with the skills of the Digital Resources Librarian from Spoken Word Services in retrieval and cataloguing, and the technical skills of the Learning Technologist created a working partnership that was highly effective. The Learning Technologist was able to advise

on all technical aspects of Clydetown from the use of suitable and accessible audio and video standards to the embedding of selected audio and video materials within the Clydetown environment. Making content more easily available to teachers in the classroom was challenging and required extensive consultation with teachers when designing and updating Spoken Word tools for finding and using web-based content. Accessibility compliance was met by the creation of a text only version of the Flash based content management system.

It is not always easy to encourage teachers to embrace technology enhanced learning approaches if there is an expectation that they are required to have all the skills to complete the task alone. Nor does it seem realistic to have a model where all technical aspects are separated out from the learning objectives. Relatively little has been written about the behaviours and attitudes of academic staff in respect of the development of technology enhanced learning resources but as HEFCE (1999 cited in Plewes & Issroff 2002, p12) '... identifies a series of well-known "constraining and enabling factors" for the development of such resources. Level of technical skill can be a barrier to effective working as can conflicting priorities set by different parts of the same institution. Teachers, for example are constrained by the expectations of them in terms of professional development, especially performance within the Research Assessment Exercise (RAE). What is not counted for RAE purposes may not be viewed by the institution as time well spent. IT staff, on the other hand, may be obliged to demonstrate their creativity and innovation, but may have no easy way to feed into the design of teaching modules and learning outcomes. It is the synergy of these two at times competing sets of drivers that has been so successful in this project. Although the project team had strong opinions on approaches to teaching, the service delivery model developed allows for 'pedagogical pluralism'. This means recognition of the established right of university teachers to determine their own teaching methods while benefiting from a flexible, blended approach has ensured that the collaborations are pedagogically rather than technologically led.

Pedagogical Influences

One of the key pedagogical influences on this project has been the work of Lave and Wenger and their analysis that 'a learning curriculum is essentially situated' (1991, p. 97). This is particularly important for social work and allied health profession students as they begin to develop skills in the assessment and evaluation of the lived experiences of others. Learning context is everything. It can be too easy for learning technologists to focus on content as learning objects but as Feldstein says,

We learn by doing. We consider. We compare. We measure, discuss debate, critique, test, and explore. We try, fail, and try again. Learning is an activity. It's a process. Given this undeniable fact, the term "learning object" can only be an oxymoron. An object is a thing. We don't learn from things. We learn from doing things. (Feldstein, 2006)

Our experience would echo some of Lave and Wenger's communities of practice research (1991), that the people and the way that they engage with the material is as important as the material itself. One of the major contributions of the Learning Technologist was to develop a range of delivery options for the academic content that were informed by their work across different academic teams. The robust content delivery mechanisms offered by the Learning Technologist enabled the academic staff to benefit directly from their expertise in identifying and analysing available technologies.

Conclusion

Although initially time consuming to create the learning environment, this project has been well-received by students who consider that it has not only increased their knowledge content but has also enabled them to better understand the contextuality of assessment and decision making. There are many possible uses yet to be attempted utilising this technology. No one skill set was more important than any other in the development of this joint venture and the method of joint working has now been showcased to the university community at a University Learning and Teaching event as a model of good collaborative practice. Perhaps the most interesting is the possibility of setting tasks for interdisciplinary groups across the school working from their own perspective to achieve a common goal such as single shared assessments. As with so many other aspects of learning and teaching, every day offers a new challenge.

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Note

- 1 The original project was a collaboration across four universities in the West of Scotland, based at the University of Strathclyde Social Work Department.

Weblinks

Digital Libraries in the Classroom: <http://www.jisc.ac.uk/whatwedo/programmes/dlitc>

Single shared assessments: <http://www.scotland.gov.uk/Publications/2005/03/20841/54394>

Spoken Word Services: <http://www.spokenword.ac.uk>

Biography

Janice West - Senior Lecturer, School of Health & Social Care, Glasgow Caledonian University
Email: j.west@gcal.ac.uk

Janice West is a Senior Lecturer in Social Work and has worked as a practitioner and manager in a range of local authority settings. Her research background includes evaluating the training needs of curators ad litem in the Courts system, utilising an action research methodology to assess the effectiveness of a mentoring scheme for black students on placement and evaluating the effectiveness of a RPL route through the DipSW programme. She also has an active interest in researching adult learning approaches to teaching and learning, specifically through the use of computer and information technology systems. She also has considerable experience in developing e-learning resources and is beginning to develop robust evaluation tools.

Aidan Johnston - Learning Technologist, Spoken Word Services, Glasgow Caledonian University
Email: a.johnston@gcal.ac.uk

Aidan Johnston is a Learning Technologist for Spoken Word Services with many years experience advising on, and designing and embedding video and audio resources, in particular those from the extensive BBC archives, to enhance the teaching and learning experience of the learner. He has collaborated on projects involving the JISC, BBC Information & Archives, The National Science Foundation, The Higher Education Academy and REAP (Re-Engineering Assessment Practices in Scottish Higher Education).